

Title (en)

Three dimensional imaging apparatus, camera, and microscope.

Title (de)

Dreidimensionales Abbildungsgerät, Kamera und Mikroskop.

Title (fr)

Appareil pour la production d'un image tridimensionnelle, caméra et microscope.

Publication

EP 0645659 A2 19950329 (EN)

Application

EP 94306896 A 19940921

Priority

GB 9319619 A 19930923

Abstract (en)

A three dimensional imaging apparatus may be used as a microscope or camera. The apparatus comprises an array of lenses (4), each of which is aligned with a respective photodetector (E). A liquid crystal spatial light modulator (3) has several pixels (a, b, c) between each photodetector (E) and lens (4). A control circuit (CC) controls the modulator (3) so that the pixels (a, b, c) in front of each photodetector act as a moving shutter. The outputs of the photodetectors (E) are processed and stored (PCM) to form a three dimensional image. <IMAGE>

IPC 1-7

G02B 27/22

IPC 8 full level

G02F 1/13 (2006.01); **G02B 21/22** (2006.01); **G02B 21/36** (2006.01); **G02B 30/27** (2020.01); **G03B 35/00** (2006.01); **G03C 9/08** (2006.01);
H04N 13/00 (2006.01); **H04N 13/02** (2006.01); **H04N 13/04** (2006.01)

CPC (source: EP US)

G02B 21/22 (2013.01 - EP US); **G02B 30/27** (2020.01 - EP US); **H04N 13/211** (2018.04 - EP US); **H04N 13/225** (2018.04 - EP US);
H04N 13/229 (2018.04 - EP US); **H04N 13/243** (2018.04 - EP US); **H04N 13/282** (2018.04 - EP US); **H04N 13/296** (2018.04 - EP US);
H04N 13/189 (2018.04 - EP US); **H04N 13/221** (2018.04 - EP US); **H04N 13/232** (2018.04 - EP US); **H04N 13/307** (2018.04 - EP US)

Cited by

EP0821532A1; FR2969822A1; EP0722256A3; US5771121A; US9048153B2; US6233003B1; US9442296B2; WO0042466A1; WO0198816A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0645659 A2 19950329; EP 0645659 A3 19951227; EP 0645659 B1 20011114; DE 69429054 D1 20011220; DE 69429054 T2 20020620;
GB 2282505 A 19950405; GB 9319619 D0 19931110; JP 3184409 B2 20010709; JP H07168125 A 19950704; US 5616912 A 19970401

DOCDB simple family (application)

EP 94306896 A 19940921; DE 69429054 T 19940921; GB 9319619 A 19930923; JP 22846194 A 19940922; US 31085394 A 19940922